UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,436	10/26/2005	Anthony Asbury	615-104	2995

7590 08/27/2008

THOMAS M. GALGANO, ESQ.
GALGANO & ASSOCIATES, PLLC
Suite 204
20 W. Park Ave
Long Beach, NY 11561

EXAMINER	
HERRING, BRENT W	

ART UNIT	PAPER NUMBER
3633	

MAIL DATE	DELIVERY MODE
08/27/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/516,436	ASBURY, ANTHONY	
	Examiner	Art Unit	
	BRENT W. HERRING	3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *36-69* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *36-69* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 November 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11302004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 48 is objected to because of the following informalities: the claim has a period following "one fastening assembly" on the second line denoting two separate sentences within the claim. Claims are to be written as only a single sentence. Appropriate correction is required.

2. Claim 62 is objected to because of the following informalities: the limitation, "a joining member, the joining member having spaced opposed walls to receive a panel," is repeated twice in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 36, 37, 41, 62 and 67 are rejected under 35 U.S.C. 102(b) as being anticipated by Lindgren, USP 3,070,646.

Regarding claim 36:

'646 discloses a method of connecting a panel (10, see Fig. 3) to a panel joining member (70, 72), the method including the steps of: forming a recess

adjacent an edge of a panel (hollowed out area wherein 62 is inserted, see Fig. 3); locating said panel edge within a panel receiving portion of a panel joining member; locating said panel against a stop member (62) and aligning the recess with a fastener aperture formed in an inner wall of the panel receiving portion (see fasteners in Fig. 3); inserting a fastener through the aperture into the corresponding recess in the panel, the fastener inherently urging the panel towards the outer wall of the panel receiving portion as it is inserted via screwing.

Regarding claim 37:

'646 discloses claim 36, and further discloses wherein a receiver (68) is inserted into the recess prior to the panel being located within the panel joining member.

Regarding claim 41:

'646 discloses claim 36, wherein the fastener has a screw-thread to engage at least one of said panel and said panel joining member(see Fig. 3).

Regarding claim 42:

'646 discloses wherein the receiver is an adaptor, the adaptor having a shape complimentary to that of the recess (see Figs. 3, 4).

Regarding claim 62:

'646 discloses a panel joint, the panel joint comprising: a panel (10) an edge of which is locally flat and which flat region includes a recess (the hole for which the screw is inserted, see Fig. 3); a joining member (70, 72), the joining member having spaced opposed walls to receive a panel; at least one stop

member (62) against which a panel is aligned; and wherein the joining member has an aperture (hole for screw) in one of said walls to enable a fastening member (66) to pass through the joining member and engage the panel, thereby inherently urging the panel against the opposite wall of the joining member as the it is inserted via screwing.

Regarding claim 67:

'646 discloses claim 62, wherein the fastening member includes a screw thread to engage the joining member.

5. Claim 58 is rejected under 35 U.S.C. 102(b) as being anticipated by Brainard et al., USP 1,813,909.

Regarding claim 58:

'909 discloses an adapter to receive a fastener and for insertion into a panel recess, the adapter comprising an opening to receive a faster, the mouth of the opening having a diameter greater than that of said fastener (inherently the mouth is larger enabling insertion of the fastener).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lindgren ('646) in view of Brainard ('909).

Regarding claim 43:

'646 discloses claim 36, but does not expressly disclose wherein the recess narrows away from its open end.

'909 discloses a method of connecting a panel wherein the recess narrows away from its open end (wall 12 is chamfered inwardly on its outer edge).

'646 and '909 are analogous art because they are from the same field of panel connecting fixtures.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the narrowing recess of '909 for the connector of '646.

The motivation to combine would have been to ease the entry of the panel in the connector.

9. Claims 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindgren ('646) in view of Hirath et al., USPA 2002/0100250.

Regarding claims 38 and 39:

'646 discloses claim 37, but does not expressly disclose wherein an adhesive or an adhesive bond weld is introduced between the panel and at least one wall of the joining member when the fastener has been tightened substantially.

'250 discloses the use of adhesive bonding or welding (para 0007) to secure an outer casing (13) to the sides of a joining member (25, see Fig. 3).

'250 and '646 are analogous art because they are from the same field of attaching panels into channels.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use adhesive or adhesive bond welding as taught by '250 for the joint of '646.

The motivation to combine would have been to provide a vacuum seal between the panel and the connecting member.

10. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lindgren ('646).

Regarding claim 40:

'646 discloses claim 36, but does not expressly disclose wherein the fastener is an expanding rivet fastener.

Examiner takes official notice that it is old and well known to use expanding rivet fasteners to connect disparate articles.

Furthermore, rivets and screws are recognized as equivalent mechanical fasteners as they perform substantially the same function.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have replaced screws in '646 with expanding rivet fasteners as no extraordinary or unexpected results would be accomplished.

The motivation to replace would have been to provide for a tighter connection that can be more quickly attached.

11. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lindgren ('646) in view of Luce, USP 2,429,833.

Regarding claim 44:

'646 discloses claim 37, but does not expressly disclose wherein the fastener is introduced into the receiver at an angle inclined to the axis perpendicular to the surface of the panel.

'833 discloses a fastening means wherein the fastener is introduced into the receiver (2, see Fig. 2) at an angle inclined to the axis perpendicular to the surface of the panel.

'646 and '833 are analogous art because they are from the same field of fastener connected receivers (2) and panels (15).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the angle inclined fastener taught by '833 in the method of '646.

The motivation to combine would have been to provide for imperfect perpendicular fastening angles.

12. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over '646 in view of Guliker, USP 4,964,252.

Regarding claim 45:

'646 discloses claim 36, but does not expressly disclose wherein the panel includes at least one projection to engage a corresponding recess in a panel joining member thereby forming a push-fit type joint.

'252 discloses a panel that includes at least one projection (20) capable of engaging a corresponding recess in a panel joining member (13, 14) thereby forming a push-fit type joint.

'646 and '252 are analogous art because they are from the same field of panel joining members.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to design the panel and joint of '646 for the panel to have a projection.

The motivation to combine would have been to provide for a joint that does not require a plethora of fasteners to hold the panel in place.

13. Claims 46 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over '646 in view of Hudock, USP 3,866,373.

Regarding claims 46 and 47:

'646 discloses claim 36, but does not expressly disclose wherein opposing walls of the panel joining member are inclined together at an angle of up to 5 degrees and wherein the angles is between 0.7 and 2 degrees.

'373 discloses a panel channel wherein the walls are inclined together.

'646 and '373 are analogous art because they are from the same field of engaging panels in a channel.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the inclined walls of '373 for the channels of '646.

The motivation to combine would have been to provide for a compressive fit.

'373 does not expressly disclose wherein the angle is less than 5 degrees and more specifically between 0.7 and 2 degrees.

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to contrive any number of desirable ranges for the inclination angle limitation disclosed by Applicant, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. Further, it

has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. Refer to MPEP § 2144.05.

14. Claims 48-52, 56 and 57are rejected under 35 U.S.C. 103(a) as being unpatentable over Brainard ('909) in view of Lindgren ('646).

Regarding claim 48:

'909 in view of '646 discloses a panel joining member comprising a joining element having at least one panel receiving portion and at least one fastening assembly; each fastening assembly comprising a fastener (see Fig. 6) and a receiver (3), wherein each panel receiving portion is defined by spaced opposing walls (11, 12), and in which a fastener aperture is located through one of said spaced opposing walls.

'909 does not expressly disclose wherein each receiving portion includes a panel stop member, located on at least one of the inner facing surfaces of said opposing walls.

'646 discloses a panel stop (68) located as claimed.

'909 and '646 are analogous art because they are from the same field of panel joining members.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the stop of '646 in the receiving portion of '909.

The motivation to combine would have been to prevent the panel from going into the receiving portion too far down

Regarding claim 49:

'909 in view of '646 discloses claim 48, and '909 further discloses wherein two panel receiving portions subtend an angle of less than 180' and the fastener aperture (see Fig. 6) is located in the internal wall of the joining member.

Regarding claims 50 and 51:

'909 in view of '646 discloses claims 48 and 49, and '909 further discloses wherein the receiver (3) of the fastener assembly is secured within a panel along a selected panel edge for inserting into a panel receiving portion.

Regarding claim 52:

'909 in view of '646 discloses claim 48, and '909 further discloses wherein the receiver (3) comprises a body adapted for engagement with a panel, the body including an open mouthed recess for receiving a fastener (see Fig. 6).

Regarding claim 56:

'909 in view of '646 discloses claim 48, and '909 further discloses wherein the panel joining member includes a chamfered edge (edge of wall member 12).

Regarding claim 57:

'909 in view of '646 discloses claim 48, and '909 further discloses wherein the fastener is a screw (see Fig. 6) having a flat ended shank.

15. Claims 54 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over '909 in view of '646 and further in view of Hudock, USP 3,866,373.

Regarding claims 54 and 55:

'909 in view of '646 discloses claim 48, but does not expressly disclose wherein opposing walls of the panel joining member are inclined together at an angle of up to 5 degrees and wherein the angles is between 0.7 and 2 degrees.

'373 discloses a panel channel wherein the walls are inclined together.

'909 and '373 are analogous art because they are from the same field of engaging panels in a channel.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the inclined walls of '373 for the channels of '909.

The motivation to combine would have been to provide for a compressive fit.

'373 does not expressly disclose wherein the angle is less than 5 degrees and more specifically between 0.7 and 2 degrees.

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to contrive any number of desirable ranges for the inclination angle limitation disclosed by Applicant, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. Further, it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. Refer to MPEP § 2144.05.

16. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over '909 in view of '646 as applied to claim 52, and further in view of Fulop, USP 5,791,845.

Regarding claim 53:

'909 in view of '646 does not expressly wherein the receiver (3 of '909) narrows away from the open mouth.

'845 discloses a screw receiver that does narrow away from the open mouth for receiving a fastener.

'909 and '845 are analogous art because they are from the same field of receivers for receiving fasteners to attach disparate articles.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use narrowing receiver structure of '845 in the receiver wall of '909.

The motivation to combine would have been to provide for a receiver that creates a tighter more compressed fit as the fastener is inserted therein.

17. Claims 59-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over '909 in view of Fulop ('845).

Regarding claims 59, 60 and 61:

'909 discloses claim 58, but does not expressly disclose wherein the opening includes a narrowing at its closed end to grip the end of a fastener (c59) wherein the opening and the narrowing are cylindrical (c60) and the cylinders are co-axial (c61).

'845 discloses said structure of the opening.

'909 and '845 are analogous art because they are from the same field of receivers for receiving fasteners to attach disparate articles.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a narrowing of the opening a narrowing at its closed end to grip the end of a fastener (c59) wherein the opening and the narrowing are cylindrical (c60) and the cylinders are co-axial (c61).

The motivation to combine would have been to provide for a receiver that creates a tighter more compressed fit as the fastener is inserted therein.

18. Claim 63 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lindgren ('646) in view of Hirath et al., USPa 2002/0100250.

Regarding claim 63:

'646 discloses claim 62, but does not expressly disclose wherein the joint includes adhesive between the panel and at least one wall of the joining member.

'250 discloses the use of adhesive (para 0007) to secure an outer casing (13) to the sides of a joining member (25, see Fig. 3).

'250 and '646 are analogous art because they are from the same field of attaching panels into channels.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use adhesive as taught by '250 for the joint of '646.

The motivation to combine would have been to provide a vacuum seal between the panel and the connecting member.

19. Claims 64 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over ‘646 (and ‘250 for claim 65) in view of Sykes, USP 4,021,129.

Regarding claims 64 and 65:

‘646 discloses claims 62 and 63, respectively, but does not expressly disclose wherein an adapter is located in the recess having a shape complimentary to the recess.

‘129 discloses an adapter (4, see Figs. 1, 2)) in the recess having a shape complimentary thereto.

‘129 and ‘646 are analogous art because they are from the same field of joining members between adjacent panels.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the adapter of ‘129 with the joint of '646.

The motivation to combine would have been to provide for a fastener.

20. Claim 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over ‘646 in view of ‘129 as applied to claim 64 above, and further in view of ‘845.

Regarding claim 66:

‘646 in view of '129 does not expressly disclose wherein the adapter narrows away from its open end to ensure that the material from which the adapter is formed undergoes plastic flow around the fastening member as the fastening member is fully engaged.

‘845 discloses said structure (2, see Fig. 10) in an adapter.

'845, '129 and '646 are analogous art because they are from the same field of securing by way of fastener.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the adapter of '129 with the adapter of '845 to create a narrowing plasticly deformable adapter.

The motivation to modify would have been to provide for a stronger more compressed anchoring means with the adapter of '129 as it would be applied in the joint of '646.

21. Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over '646 as applied to claim 62, in view of Watanabe, USP 4,372,701.

Regarding claim 68:

'646 discloses claim 62, but does not expressly disclose wherein the recess includes an aperture to receive a nut into which the fastening member can be screwed, the member and the nut co-operatively engaging to lock the nut against the inner wall.

'701 discloses a connecting structure wherein a recess includes an aperture (2a, see Fig. 2(a)) to receive a nut (4, see Fig. 1) into which the fastening member can be screwed, the member and the nut co-operatively engaging to lock the nut against the inner wall.

'646 and '701 are analogous art because they are from the same field of attaching external members into channels via fasteners engaging the channel and member.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the nut of '701 in the member of '646.

The motivation to combine would have been to provide for a more secure connection between the screw and the internal components of the channel to ensure against the dislocation of the screw in the event of a breakdown in the wall of the channel.

22. Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lindgren ('646) in view of Luce ('833).

Regarding claim 69:

'646 discloses claim 62, but does not expressly disclose wherein the fastening member is aligned along an axis which is at an angle inclined to the axis perpendicular to the surface of the panel.

'833 discloses a fastening member wherein the fastener is introduced into the receiver (2, see Fig. 2) at an angle inclined to the axis perpendicular to the surface of the panel.

'646 and '833 are analogous art because they are from the same field of fastener connected receivers (2) and panels (15).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the angle inclined fastening member taught by '833 in the joint of '646.

The motivation to combine would have been to provide for imperfect perpendicular fastening angles.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENT W. HERRING whose telephone number is (571)270-3661. The examiner can normally be reached on Monday-Thursday, 8:00AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian E. Glessner can be reached on (571)272-6847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BWH/

bwh

/Robert J Canfield/

Supervisory Patent Examiner, Art Unit 3635